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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/079,397

02/20/2002

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6716

7590

03/09/2006

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EXAMINER

FASTOVSKY, LEONID M

ART UNIT

PAPER NUMBER

3742

DATE MAILED: 03/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/079,397		SCHAEFFER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Leonid M. Fastovsky		3742	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-6, 18 and 26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 is/are allowed.
- 6) ☒ Claim(s) 2-6 and 26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 October 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 2 - 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perett (2002/0046422) in view of Hochstein (5,649,972) and further in view of Hjortsberg (4,908,497).

Perett discloses a compact sauna (Fig. 1-6) for causing a user to sweat and primary plural infrared heat sources 22 and 68 are provided in close proximity about the user, and heat generated from the heat sources 22 and 68 is subjected

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to electromagnetic radiation into a sauna room (page 1, [0017]). However Perett does not disclose protrusions and a low –level of extremely low frequency electromagnetic fields.

Hochstein discloses an apparatus 10 comprising an infrared source 42 and fins-protrusions 70, the infrared source 42 provides heat to a user.

Hjortsberg discloses two electric heating elements 1 and 2 that can be used in heating panels where the device is brought into proximity with the human body. The elements are conventionally powered by alternating current that decreases an electromagnetic field sources (Fig. 1-4, col.2, lines 51-61).

It would have been obvious to one having ordinary skill in the art to modify Perett's invention to have his infrared heaters powered by alternative current as taught by Hjortsberg in order to reduce potential harmful effects of magnetic fields produced during room heating. Further, It would have been obvious to one having ordinary skill in the art to modify the invention of Perett in view of Hjortsberg to include fins-protrusions projecting towards the user as taught by Hochstein and have fins separated by less than a finger width in order to heat the user and prevent him from being hurt by heat when he gets in contact with the heater because the protrusions are made from a low thermal conductivity material (col. 8, lines 65-67 and col. 9, lines 1-10).

4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perett in view of Hochstein and Hjortsberg and further in view of Grise et al (4,485,297).

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Perett in view of Hochstein and Hjorstberg discloses substantially the claimed invention including a film-substrate disclosed by Hjorsberg (col. 1, lines 5-20), but does not disclose the substrate bearing a semiconductor pattern on each side, a pair of longitudinal stripes and a metallic conductor overlaying each stripe. Grise discloses heaters having a plurality of bars 18 of the semiconductor pattern (col. 4, lines 11-24), a pair of longitudinal stripes 14 interconnected with the bars and a metallic conductor 22 overlaying each stripe. It would have been obvious to one having ordinary skill in the art to modify the invention of Perett in view of Hjorsberg to include a plurality of bars of the semiconductor pattern, a pair of longitudinal strips and a metallic conductor overlaying on each stripe in order to have a high uniformity of heating at reduced cost as taught by Grise (Col. 1, lines 20-25).

5. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perett in view of Hjortsberg and further in view of Hochstein.

Perett in view of Hjortsberg teaches substantially the claimed invention including a plastic inherently electrically insulating film-substrate (col. 1, lines 5-20), but does not disclose protrusions of low heat conducting material. Hochstein discloses an apparatus 10 comprising an infrared source 42 comprising a base 44 to be heated to uncomfortable to touch temperature (Fig. 2-4, col. 7, lines 20-30) and fins-protrusions 70 fabricated from a material having low thermal conductivity (col. 8, lines 65-67, col. 9, lines 1-10) and capable of being comfortable to touch. It would have been obvious to one having ordinary skill in the art to modify the invention of Perett in view of Hjortsberg to include fins-

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protrusions projecting towards the user as taught by Hochstein and capable of being comfortable to touch even though the base is at uncomfortable temperature.

***Allowable Subject Matter***

6. Claim 18 is allowed.

7. The following is an examiner's statement of reasons for allowance: claim 18 is allowed because the prior art of record does not teach or fairly suggest an infrared heater comprising two sets of resistive bars, a base, wherein the base is finned and has valleys between the fins and a panel for spacing the heater is corrugated and its ridges underline corresponding resistive bars.

***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

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the statutory period for reply expire later than SIX MONTHS from the date of this final action.

### ***Response to Arguments***

9. Applicant's arguments with respect to claims 2-6 and 26 have been considered but they are not persuasive.

As for claims 2 - 5, it would have been obvious to one having ordinary skill in the art to modify the invention of Perett in view of Hochstein and to have Perett's infrared heaters powered by alternative current as taught by Hjortsberg in order produce continuously active infrared heaters with reduced potential harmful effects of magnetic fields produced during room heating.

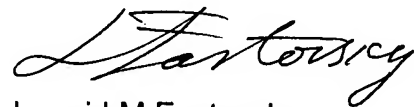
As for claims 6 and 26, Hochstein discloses the fins-protrusions and although coating is applied to the inner surface 75 of the protrusions 70, it does not effect the top surface of the protrusions 70, and therefore the top surface of the protrusions is capable of being comfortable to touch even though the base 44 is at uncomfortable to touch temperature since the structure is there and the claim limitations are met. It would have been obvious to one having ordinary skill in the art to modify the invention of Perett in view of Hjorsberg to include a plurality of bars of the semiconductor pattern, a pair of longitudinal strips and a metallic conductor overlaying on each stripe in order to have a high uniformity of heating at reduced cost as taught by Grise (Col. 1, lines 20-25).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonid M Fastovsky whose telephone number is 571-272-4778. The examiner can normally be reached on M-Th. 8.00 am -6.00 pm.

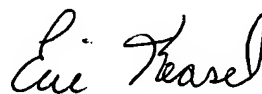
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Leonid M Fastovsky  
Examiner  
Art Unit 3742

lmf

  
Eric Keasel  
Primary Examiner  
TC 3200